

**REMARKS**

This responds to the Office Action mailed on October 4, 2005.

Claims 1, 5, 20, 8, 20-21, 23-25, 28-32, 36, and 40 are amended, claims 9-19, 41-49 are canceled, and no claims are added; as a result, claims 1-8 and 20-40 are now pending in this application. Applicant reserves the right to reintroduce canceled claims 9-19 and 41-49 in one or more continuing applications at a later date. It will be noted that some minor typographical corrections have been made to the claims.

**§112 Rejection of the Claims**

Claims 5, 28-30, and 36 were rejected under 35 U.S.C. § 112, second paragraph, for indefiniteness.

The Examiner is thanked for his helpful suggestions regarding the correction of the antecedent basis of claims 28 and 30. Claims 5, 28, 30 and 36 have been amended and it is submitted that this rejection has been overcome.

**§102 Rejection of the Claims**

Claims 1-3, 5-8, and 20-31 were rejected under 35 U.S.C. § 102(e) for anticipation by McGrath (U.S. 6,259,795).

McGrath relates to a method for distribution to multiple users of a soundfield having positional spatial components is disclosed including inputting a soundfield signal having the desired positional spatial components in a standard reference frame (see Abstract). As clearly shown in Figure 3, McGrath describes an audio input which is fed into a delay line 31 and each tap 33-36 feeds a filter function 40-47. A single tap 33-36 feeds a single set of gain functions 41-44 (others not numbered). It is important to note that, thereafter, signals from the different taps 33-36 are **combined** into different channels. For example, lines/components 60-63, which are derived from different taps 33-36, are shown to converge on output 55. In particular, “[e]ach of the corresponding B-format components eg 60-63, are added together 55 to produce the B-format component output 65. The other B-format components are treated in a like manner.” (Col. 55, lines 32-35). McGrath thus describes a configuration where outputs from different gain functions 33-36 are combined and thus outputs of different taps 33-36 are combined. Figure 5 of McGrath

further shows how the outputs X, Y, Z and W are further fed to both a left headphone channel and a right headphone channel. Clearly, in McGrath an output from a single tap is fed into both left and right output channels.

In stark contrast to McGrath, the present invention as claimed specifically avoids combining outputs from different taps. As can be seen in Figure 6 of the present application, a single tap feeds a single audio channel. In particular, a first tap is shown by way of example to feed a left-channel audio output without inclusion of any signal derived from a second tap that feeds a right-channel audio output. Thus, a delay at a particular tap is fed to a single output channel (and thus to a left ear or a right ear) to facilitate interaural time delay (ITD) differences or binaural time differences. This, for example, allows *a priori* selection of the spatial functions when decoding.

It is important to note that the mixer (MIX) in the present application does not mix outputs from the first and second taps but mixes signals from other inputs (e.g., an in2) to in1. This is clearly evident from a reading of the specification and claims. For example, on page 12 it is stated that “[t]he mixer provides for mixing of additional source signals, including a synthesized source.” In claim 6 an embodiment with multiple source signals is described. In particular, a second audio signal is received and third encoded signals and fourth encoded signals are produced. The first and the third encoded signals, or the first and the fourth encoded signals may be mixed and the second and the fourth encoded signals, or the second and the third encoded signals may be mixed. *It will be noted that the first and the second encoded signals are not mixed. Likewise, neither are the third and the fourth encoded signals mixed.*

Claim 1 has been amended to include the limitation of “the left-channel audio output excluding the second encoded signals and the right-channel audio output excluding the first encoded signals.” Clearly this is not described in McGrath. Accordingly, claim 1 is allowable. As claims 2-8 are dependent upon claim 1 they are also allowable.

Claim 20 has also been amended and now includes the limitation of “providing the first set of filtered signals to a left channel audio signal and providing the second set of filtered signals to a right channel audio signal, the left channel audio signal excluding the second set of filtered signals and the right-channel audio signal excluding the first set of filtered signals.”

Clearly this is not described in McGrath. Accordingly, claim 20 is allowable. As claims 21-40 are dependent upon claim 20 they are also allowable.

**§103 Rejection of the Claims**

Claims 4, and 34-36 were rejected under 35 U.S.C. § 103(a) as being unpatentable over McGrath (U.S. 6,259,795) in view of McGrath et al. (U.S. 6,628,787).

Claim 32 was rejected under 35 U.S.C. § 103(a) as being unpatentable over McGrath (U.S. 6,259,795) in view of Gerzon et al. (U.S. 5,757,927).

Claims 33 and 37 were rejected under 35 U.S.C. § 103(a) as being unpatentable over McGrath (U.S. 6,259,795) in view of Gerzon et al. (U.S. 5,757,927) as applied to claim 32 above, and further in view of Clemow (U.S. 6,577,736).

Claims 38-40 were rejected under 35 U.S.C. § 103(a) as being unpatentable over McGrath (U.S. 6,259,795) in view of McGrath et al. (U.S. 6,628,787) as applied to claim 34 above, and further in view of Clemow (U.S. 6,577,736).

Claims 4 and 32-40 are dependent upon allowable claims 1 and 20 respectively and are thus also allowable.

**AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111**

Serial Number: 09/806,193

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Title: METHOD AND APPARATUS FOR THREE-DIMENSIONAL AUDIO DISPLAY

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Dkt. 2045.114US1

**CONCLUSION**

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at 408-278-4041 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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**CERTIFICATE UNDER 37 CFR 1.8:** The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop Amendment, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 21 day of December, 2005.

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